PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 00-1282)

In the Application of:	
Jourdier et al.	**Examiner: Bao Q. Li**
Serial No.: 09/720,513	**Group Art Unit: 1648**
Filing Date: March 26, 2001	**Confirmation No.: 1648**
For: Mucosal Targeting Immunisation	

DECLARATION OF THERESE-MARIE JOURDIER UNDER 37 C.F.R. § 1.132

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

I, Therese-Marie Jourdier, declare as follows:

1. I am a named inventor of the above-captioned patent application.

2. I have a doctorate in Microbiology, specializing in virology. My doctoral thesis was entitled, "Establishment of experimental animal models for the study of the infection by the virus Herpes simplex."

3. I am currently the Head of a Research Unit in the Research immunology department.. I have been employed by sanofi pasteur S.A. and its predecessor companies since 1975, when I began working in the microbiology department. Since 1983 my work has centered on the establishment of animal models to access inoculation parameters and immunogenicity of antigens under consideration by our company.

4. Based on my education and at least 20 years of experience referred to above, I am considered an expert in animal experimentation, being authorized by the French Agriculture and Fishing Ministry (sub-direction of Health and Animal Protection) to undertake and supervise experimentation on a large panel of live vertebrate animals.

5. I present herein the results of an experiment in monkeys (4 monkeys per group) wherein the ALVAC vCP205 10^6 CCID50 and HIV-1 gp160 MN/LAI antigens were administered to the deltoid (shoulder) or to the thigh (rectus femoris and gracilis muscles) according to the administration regimen 2 (Appendix 2) or to the vaginal/rectal route according to the administration regimen 1 (Appendix 1).

Appendix 1 and 2 are the same as administration regimens 1 and 2 (Appendix 1 and 2) of my previous Declaration:

Group 1: administration was intramuscular injection in the deltoid of ALVAC vCP205 10^6CCID50 followed by intramuscular injection of 100 µg of adjuvanted gp160 according to appendix 2.

Group 2: administration was intramuscular injection in the deltoid of ALVAC vCP205 10^6CCID50 followed by intramuscular injection of 100 µg of adjuvanted gp160 and then followed by four administrations by simultaneously vaginal and rectal routes with 100 µg of adjuvanted gp160 according to appendix 2.

Group 3: administration was intramuscular injection in the deltoid of ALVAC vCP205 10^6CCID50 followed by intramuscular injection of 100 µg of adjuvanted gp160 and then followed by six administrations by simultaneously vaginal and rectal routes with 100 µg of adjuvanted gp160 according to the administration regimen 2 (Appendix 2).

Groups 4, 5 and 6: administration was by intramuscular injection in the rectus femoris of ALVAC vCP205 10^6CCID50 per thigh followed by intramuscular injection of 50 µg of adjuvanted gp160/thigh (group 4) and then followed by 4 administrations (group 5) or 6 administrations (group 6) by simultaneously vaginal and rectal routes with 100 µg of adjuvanted gp160 according to the administration regimen 2 (Appendix 2).

Groups 7 and 8: administration was by intramuscular injection in the gracilis of ALVAC vCP205 10^6CCID50 per thigh followed by intramuscular injection of 50 µg of adjuvanted gp160/thigh (group 7) and then followed by 6 administrations (group 8) by simultaneously vaginal and rectal routes with 100 µg of adjuvanted gp160 according to the administration regimen 2 (Appendix 2).

Group 9: administration was by vaginal and rectal routes simultaneously with 100 μg of adjuvanted gp160 according to the administration regimen 1 (Appendix 1).

6. Samplings of vaginal and rectal secretions were taken regularly for quantitation of local antibodies at the same time that blood samplings were taken for quantitation of serum antibodies. Seven days after the last immunization, the animals were euthanized for quantitation of specific antibody producing cells in various lymph nodes. The analysis of the immune response was carried out by the same methods as described in the present specification.

7. The specific anti-gp160 IgA response for each group is given in Appendix 3 for the axillary, inguinal, external Iliac, and internal iliac lymph nodes.[1] The data for each of Groups 1-9 are represented in the bar graph consecutively from left to right. The data represent (per group) the average of the results obtained from the four monkeys.

8. The results displayed show that no specific anti-gp160 IgA were present in the vaginal or rectal secretions when the antigen is administered directly at the targeted site and that administration to the thigh gives a substantially and significantly greater specific anti-gp160 IgA response in the rectogenitourinary region compared to administration to the deltoid.

9. I further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

[1] "NT" means "not tested."

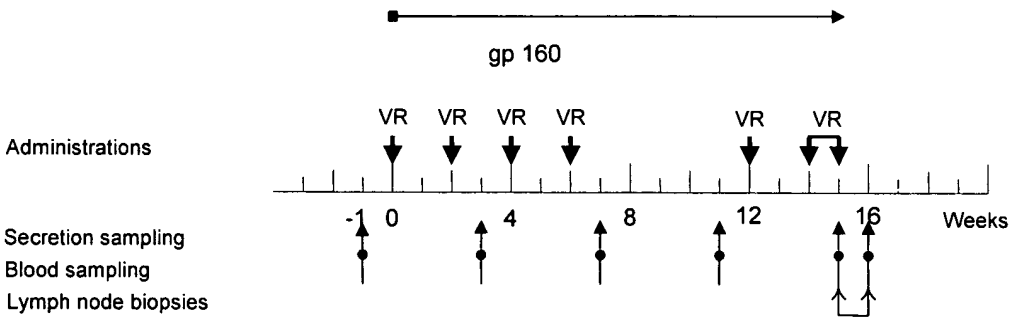
T Jourdier

Sept. 19, 2005

Therese-Marie Jourdier

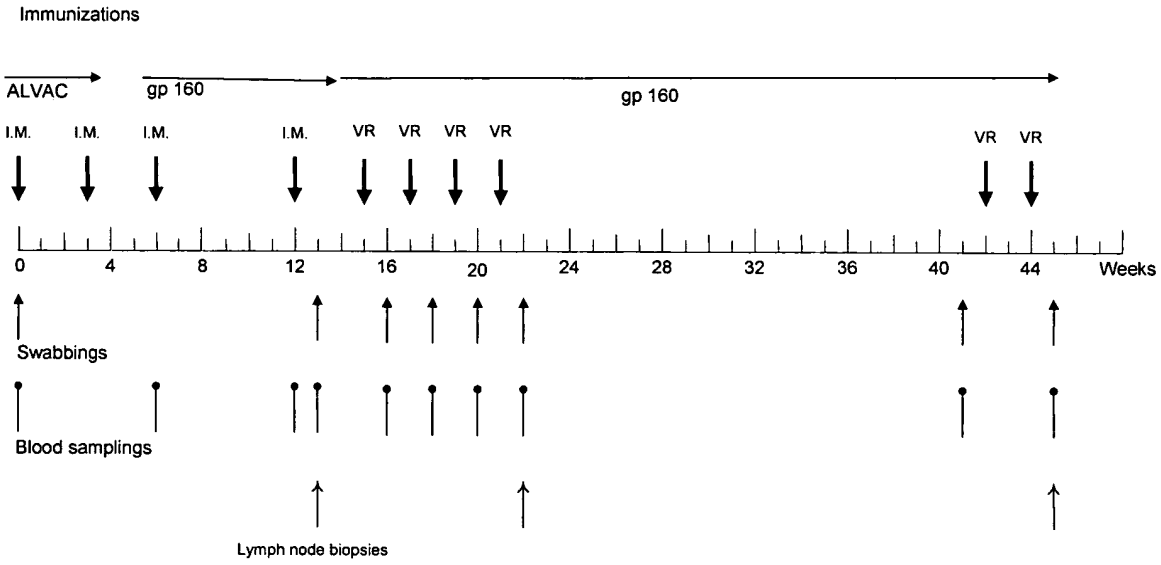
Date: _____

Appendix 1



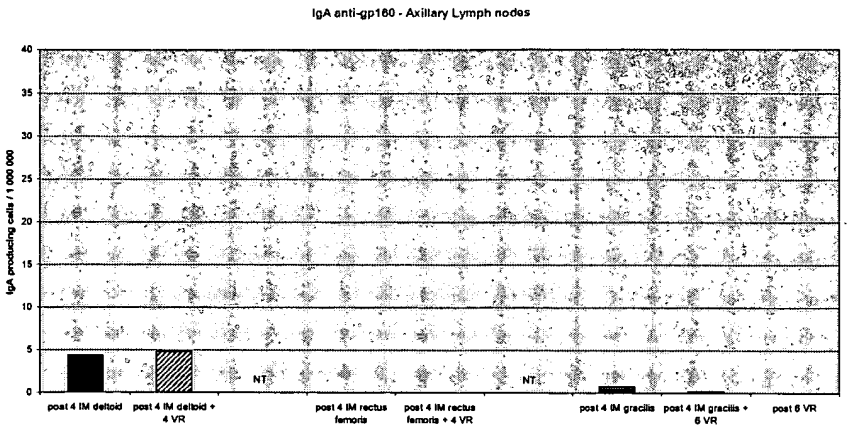
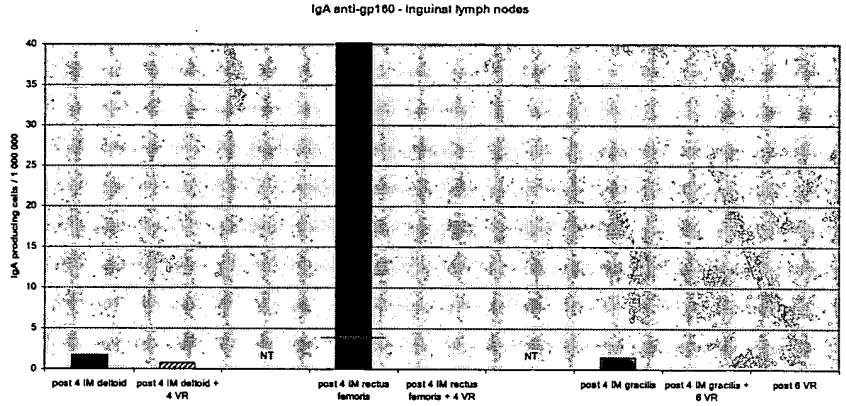
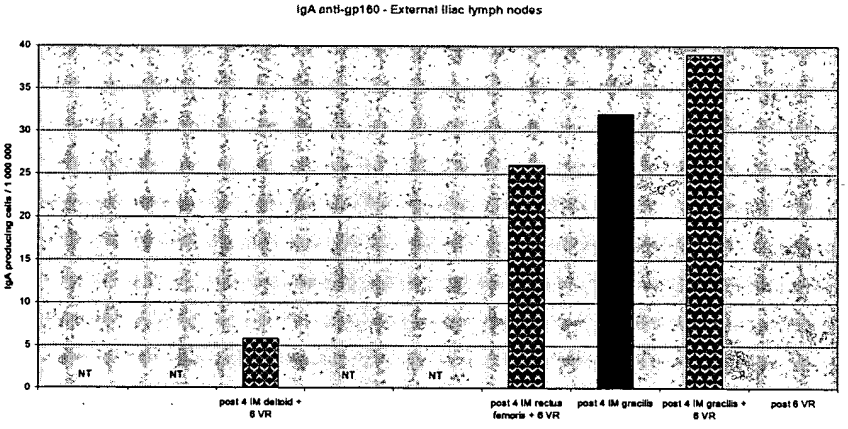
VR = vaginal+rectal

Appendix 2



I.M. = intramuscular route
VR = vaginal and rectal route

APPENDIX 3

Axillary	
Inguinal	
External Iliac	
Internal Iliac